We claim:

1. An isolated nucleic acid sequence encoding a soluble nephrin or soluble nephrin-like molecules shared by pancreas and kidney glomerulus, c h a r a c t e r i z e d in, that it comprises the nucleic acid sequence SEQ ID NO:1: or nucleic acid sequences with substantial similarity encoding nephrin-like molecules or derivatives thereof, having the properties and functions characteristic of nephrin-like molecules, said nephrin-like molecules having an amino acid sequence substantially homologous with SEQ ID NO:2: but lacking the transmembraneous domain SEQ ID NO:3: of nephrin.

2. The isolated nucleic acid sequence according to claim 1, c h a r a c t e r i z e d in, that it comprises the nucleic acid sequence SEQ ID NO:1: or nucleic acid sequences with substantial similarity encoding nephrin-like molecules or derivatives thereof, having the properties and functions characteristical of nephrin-like molecules, said nephrin-like molecules having an amino acid sequence substantially homologous with SEQ ID NO:2: but lacking the transmembraneous domain SEQ ID NO:3: and having at least one contagious amino acid sequence (SEQ ID NO:4:) consisting of intra- and -extracellular domains of SEQ ID NO:2: or variations thereof.

3. The isolated nucleic acid sequence according to claim 1, c h a r a c t e r i z e d in, that it comprises a continuous nucleotide sequence SEQ ID NO:5:, SEQ ID NO:6: or SEQ ID NO:7: derivable from the human nephrin encoding nucleic acid sequence SEQ ID NO:1:.

4. Soluble nephrin-like molecules shared by pancreas and kidney glomerulus, c h a r - a c t e r i z e d in, that they comprise polypeptides or derivatives thereof, having the properties and functions characteristical of nephrin-like molecules and being substantially homologous with the amino acid sequence SEQ ID NO:2: but lacking the transmembraneous domain SEQ ID NO:3: of nephrin.

5. The soluble nephrin-like molecules according to claim 4, c h a r a c t e r i z e d in, that they comprise at least one contagious amino acid sequence (SEQ ID NO:4:) or variations thereof.

6. A binding substance, c h a r a c t e r i z e d in, that it is capable of specifically recognizing and binding to the soluble nephrin-like molecules according to claims 4-5 or nucleic acid sequences encoding such nephrin-like molecules.

7. The use of the isolated nucleic acid sequences according to claims 1-3 for manufacturing means for diagnostic evaluation, prophylactic and therapeutic treatment of diabetic and other nephropathies and of diabetes mellitus and other inflammatory and neoplastic pancreatic diseases.

8. The use of the soluble nephrin-like molecules according to claim 3-4 or parts thereof for screening or for manufacturing of test kits for screening the presence or absence of autoantibodies against said soluble nephrin-like molecules in order to assess the susceptibility of a person to diabetic and other nephropathies and of diabetes mellitus and other inflammatory and neoplastic pancreatic disease.

9. The use of the soluble nephrin-like molecules according to claim 3-4 or parts thereof in the production of means for drug and therapy development of diabetic and other nephropathies and of diabetes mellitus and other inflammatory and neoplastic pancreatic disease.

10. The use of the binding substances according to claim 6 for diagnostic evaluation and for manufacturing of means for diagnostic evaluation, prophylactic and therapeutic treatment of diabetic and other nephropathies and of diabetes mellitus and other inflammatory and neoplastic pancreatic diseases.

11. A method for diagnosing whether a subject suffers from diabetic and other nephropathies and of diabetes mellitus and other inflammatory and neoplastic pancreatic diseases said method comprising the steps of

(a) obtaining a blood or urine sample from a subject suspected of suffering or treated for said diseases;

(b) contacting said sample with a reagent comprising soluble nephrin-like molecules according to claim 3 or parts thereof;

(c) recording the absence or presence of a reaction of said soluble nephrin-like molecules when contacted with the sample; and

(d) evaluating the presence or absence of autoantibodies based on said reaction and assessing treatment measures required based on said results.

12. A method for evaluating the efficacy of treatment modalities in subjects suffering from diabetic and other nephropathies and of diabetes mellitus and other inflammatory and neoplastic pancreatic diseases said method comprising the steps of

(a) obtaining a blood or urine sample from a subject suspected of suffering or treated for said diseases;
(b) contacting said sample with a reagent comprising soluble nephrin-like molecules according to claim 3 or parts thereof;
(c) recording the absence or presence of a reaction of said soluble nephrin-like molecules when contacted with the sample; and
(d) evaluating the need of continued treatment measures based on said results.

13. A method for screening the susceptibility of diabetic and other nephropathies and of diabetes mellitus and other inflammatory and neoplastic pancreatic diseases in large population groups said method comprising the steps of

(a) obtaining a blood or urine sample from a subject suspected of suffering or treated for said diseases;
(b) contacting said sample with a reagent comprising soluble nephrin-like molecules according to claim 3 or parts thereof;
(c) recording the absence or presence of a reaction of said soluble nephrin-like molecules and the autoantibodies present in the sample; and
(d) evaluating the need of prophylactic measures based on said results.

14. A method for diagnosing whether a subject suffers from diabetic and other nephropathies and of diabetes mellitus and other inflammatory and neoplastic pancreatic diseases, said method comprising the steps of

(a) obtaining a blood or urine sample from a subject suspected of suffering or treated for said diseases;
(b) contacting said sample with a reagent comprising a binding substance specifically recognizing and binding to a soluble nephrin-like molecule according to claim 3 or parts thereof;
(c) recording the absence or presence of a reaction when said binding substance is contacted with the sample; and
(d) evaluating the treatment measures required based on said results.

15. A method for evaluating the efficacy of treatment modalities in subjects suffering from diabetic and other nephropathies and of diabetes mellitus and other inflammatory and neoplastic pancreatic diseases said method comprising the steps of

(a) obtaining a blood or urine sample from a subject suspected of suffering or treated for said diseases;
(b) contacting said sample with a reagent comprising a binding substance specifically recognizing soluble nephrin-like molecules according to claim 3 or parts thereof;
(c) recording the absence or presence of a reaction when contacting the binding substance with the sample; and
(d) evaluating the need of continued treatment measures based on said results.

16. A method for screening the susceptibility of diabetic and other nephropathies and of diabetes mellitus and other inflammatory and neoplastic pancreatic diseases in large population groups comprising said method comprising the steps of

(a) obtaining a blood or urine sample from a subject suspected of suffering or treated for said diseases;
(b) contacting said sample with a reagent comprising a binding substance specifically recognizing a soluble nephrin-like molecule according to claim 3 or parts thereof;
(c) recording the absence or presence of a reaction when contacting said binding substance with the sample; and
(d) evaluating the need of prophylactic measures based on said results.